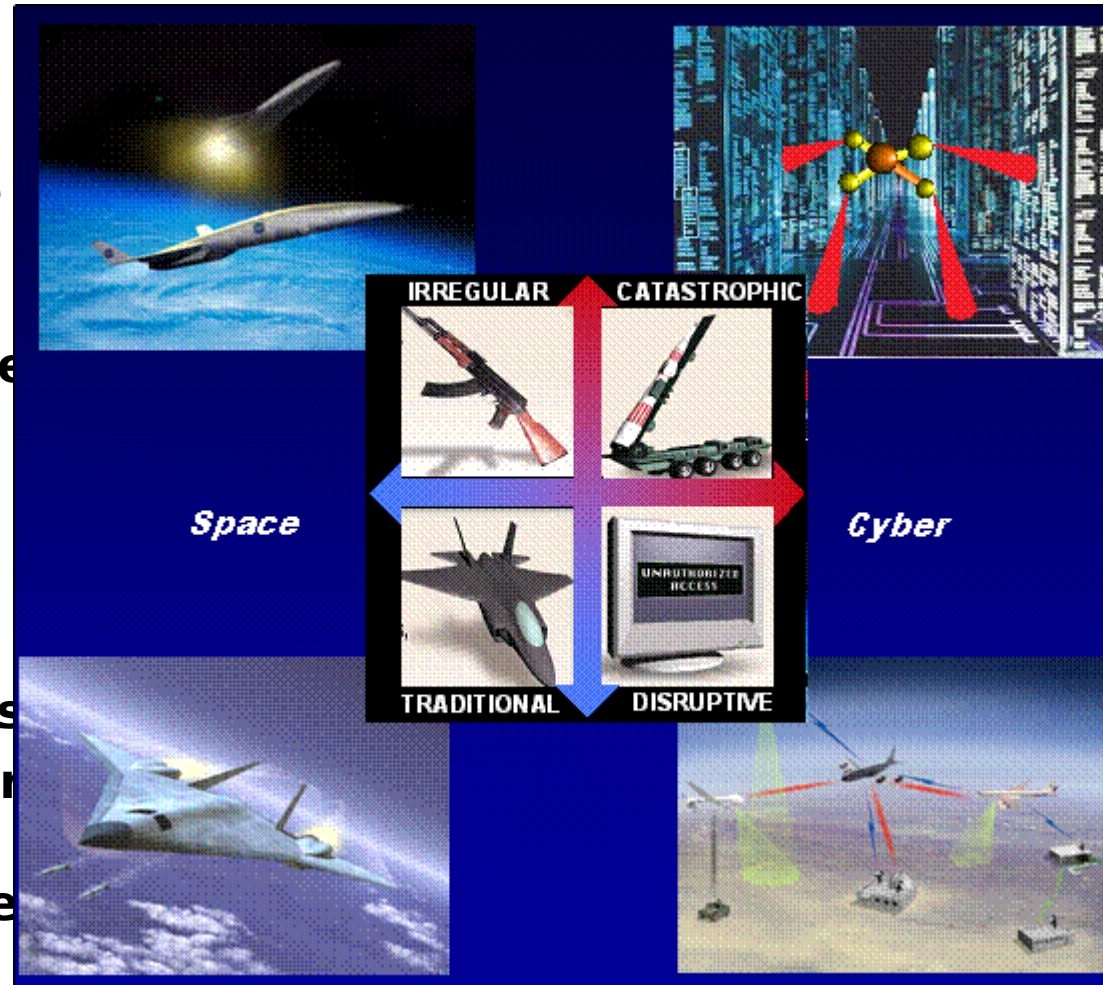


FLTC Perspective

- Focused Long Term Challenges (FLTCs) are an innovative approach to match user requirements with relevant technology development, while also leveraging from existing multi-directorate research. The eight FLTCs created are focused to address all threat areas addressed in the Quadrennial Defense Review (QDR). Of the eight shown on the graphic, there are four with specific application to the Information Directorate, identified on the following slides or link.

Focused Long Term Challenges

1. Anticipatory Command, Control & Intelligence (C2I)
2. Unprecedented Proactive Surveillance & Reconnaissance (S&R)
3. Dominant Difficult Surface Target Engagement/Defeat
4. Persistent & Responsive Precision Engagement
5. Assured Operations in High Threat Environments
6. Dominant Offensive Cyber Engagement
7. On-demand Theater Force Projection, Anywhere
8. Affordable Mission Generation & Sustainment



AFRL/IF FLTC Emphasis Categories

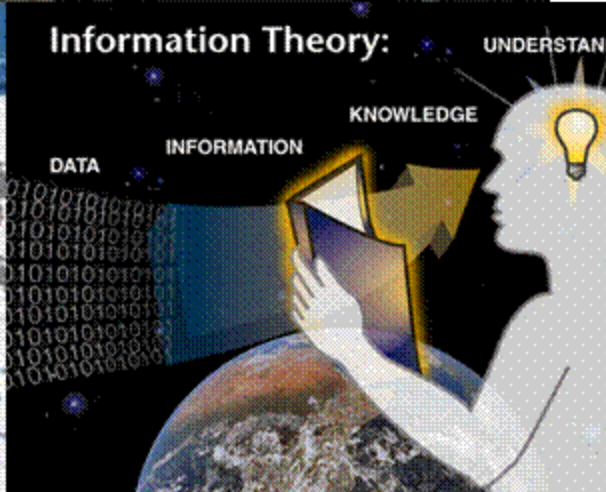
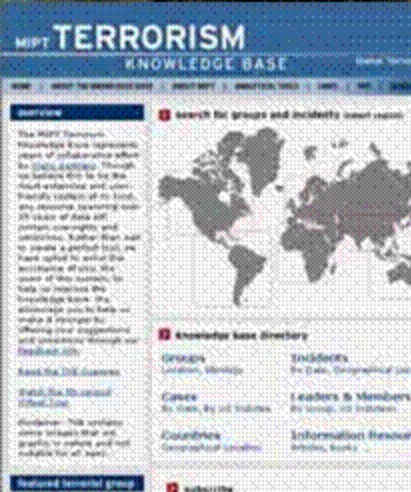
- #1 - Anticipatory C2I
- #5 - Assured Operations in High
Threat Environments
- #6 - Dominant Offensive Cyber
Engagement
- #7 - On-Demand Theater Force
Projection

FLTC #1 Anticipatory Command, Control & Intelligence (C2I)

Anticipate Enemy Actions and Respond with Synchronized Management of Battlespace Effects



- Find Threatening Systems & Objects
- Predict Adversary Behaviors
- Perform Near-Real Time Decision Management
- Assure Fully Effective C2 Operators
- Conduct On-Demand Collaboration Across Operator and Sensor



Strategizing



FLTC #5 Assured Operations in High Threat Environments

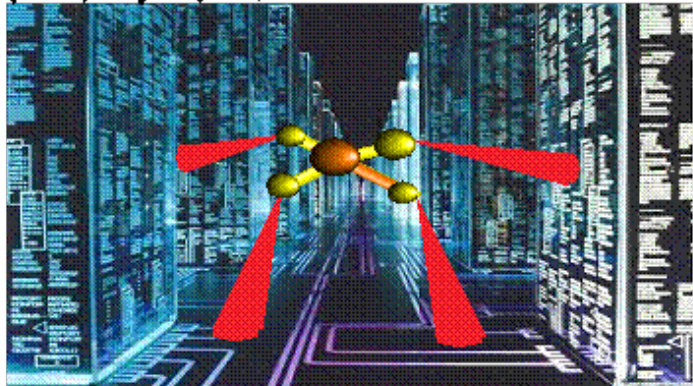
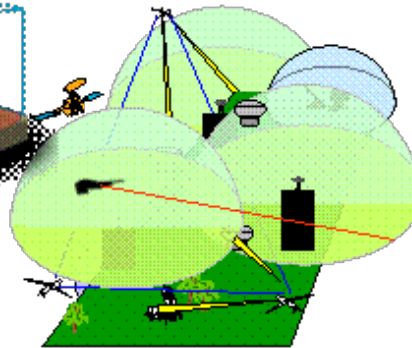
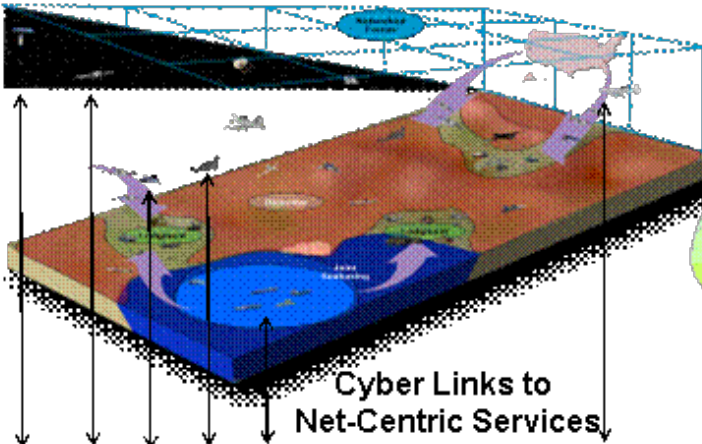
Achieve Mission Objectives With Impunity Against Full Spectrum Threats, from Anti-Access IADS to Cyber

Assured operations in aerospace

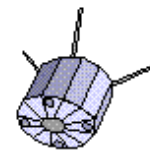
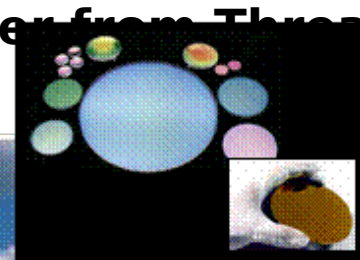
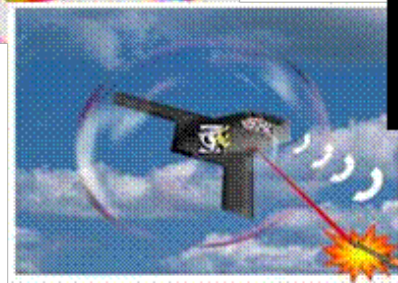
Cyber

- **Anticipate and Avoid Threats Through Stealth and Deception**
- **Detect and Defeat Threats Through Active Defenses**
- **Survive the Attack Through Passive and Adaptive Protection**

Recover from Threat Effects

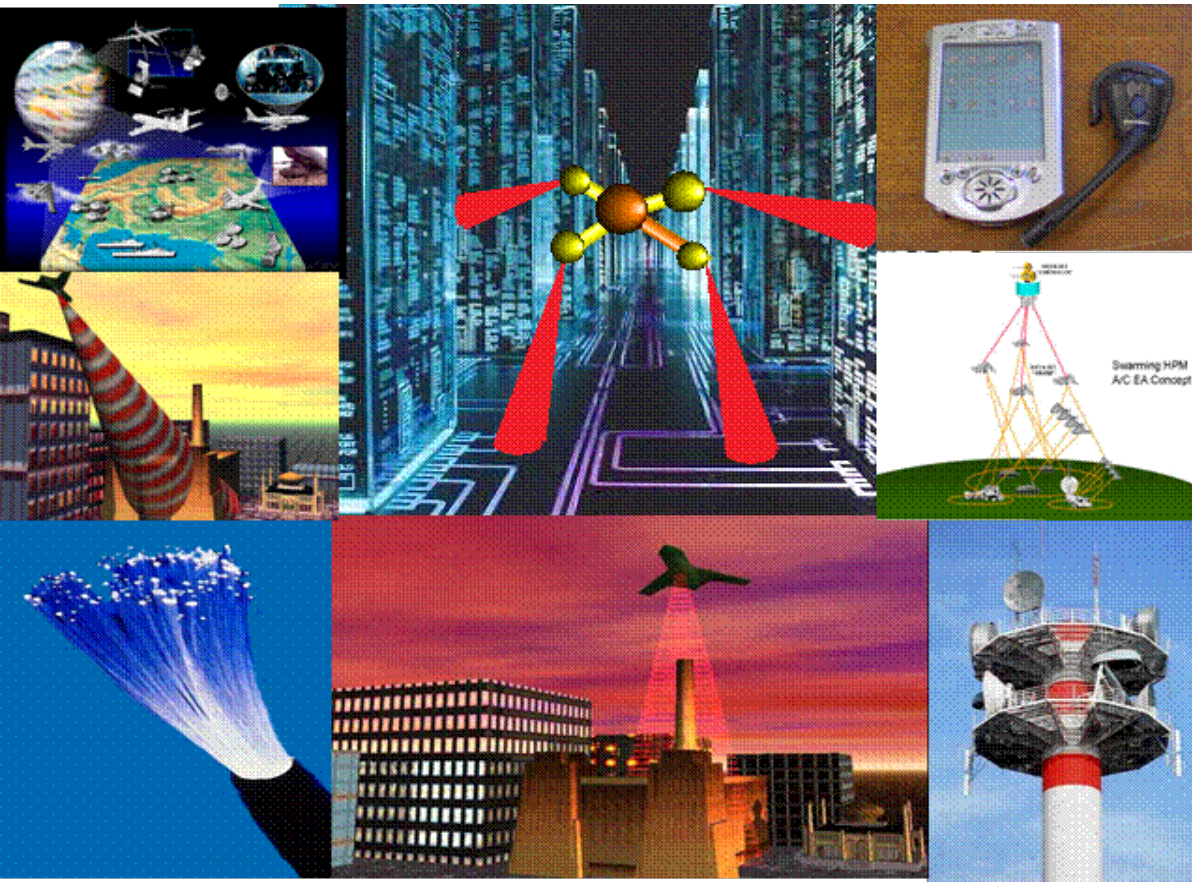


Protection in the cyber domain



FLTC #6 Dominant Offensive Cyber Engagement

Conduct full spectrum offensive cyber/info ops against military, leadership, and infrastructure



- **Access Adversary's Cyber/Info Systems Anywhere, Anytime**
- **Operate with Stealth and Persistence in Cyber**
- **Generate Robust Cyber Intelligence (CYBINT)**
- **Deliver Integrated D5 Information Operations Effects**
- **Deliver Counter**

FLTC #7 On-Demand Force Projection, Anywhere

Timely Deployment of Flexible Ground, Information & Space Capabilities for the Commander



- **Rapidly Constitute Multi-Mission, Affordable Satellites**
- **Rapidly Deploy Multi-Mission, Affordable Space Payloads**
- **Generate On-Demand, Reusable Affordable Space Access**
- **Rapidly Checkout Spacecraft and Autonomous Operations**
- **Globally Project Ground Forces and Material Anywhere in All Weather**
- **Globally Move, Manage, And Process Information In Real-time**

